

Date: Thu, 28 Oct 93 04:30:37 PDT
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>
Errors-To: Ham-Homebrew-Errors@UCSD.Edu
Reply-To: Ham-Homebrew@UCSD.Edu
Precedence: Bulk
Subject: Ham-Homebrew Digest V93 #86
To: Ham-Homebrew

Ham-Homebrew Digest Thu, 28 Oct 93 Volume 93 : Issue 86

Today's Topics:

 Help with Uniden mod
 Homebrew SSB
 INTERMOD
 QRP email list - more
 QRP Mail List
 Ramsey Power amp kits
 Temp control soldering iron?

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>

Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>

Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 26 Oct 1993 19:14:59 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!spool.mu.edu!news.clark.edu!
netnews.nwnet.net!news.u.washington.edu!hardy.u.washington.edu!
ptorre@network.ucsd.edu
Subject: Help with Uniden mod
To: ham-homebrew@ucsd.edu

I have a Uniden AMH350D VHF radio here that I am trying to bump
down into the 2-meter band (it's currently on the ~155 MHz mobile
telephone band). I know that the PLL will accept divisor codes to
drop down to 145-147 with no problem, so I'm assuming that all I
have to do is tweek the VCO so it can also run that low.

That's about the limit of my knowledge; I'm trying to hunt down a
schematic for the radio, and hopefully the VCO circuit will be very
simple and easy to modify (isn't everything?). Assuming I can figure

out how to lower the tuning range of the VCO, is it then just a simple matter of loading the PLL with the correct divisor for 145 MHz and tweeking the VCO until the tuning voltage goes to zero? Are there any ways to blow up the radio trying this? (If they're there, I'll find 'em.)

Many thanks for any help!

--Phil Torre KB7ZFH (ptorre@u.washington.edu)

Date: Thu, 28 Oct 1993 00:55:14 GMT
From: usc!yeshua.marcam.com!news.kei.com!ub!csn!teal.csn.org!
dfeldman@network.ucsd.edu
Subject: Homebrew SSB
To: ham-homebrew@ucsd.edu

In article <1188@auratek.COM> epacyna@auratek.COM (Edward Pacyna) writes:

>
>
>Here is a quick round down on a 20M SSB transceiver I built.
>
>Ed W1AAZ

Ed - I would *just love* to reproduce your transceiver - would you be willing to publish or copy the schematic & pc board pattern? I think it would be a great construction project, as someone recently pointed out here that msot of the home brew projects are CW and I really like SSB QRP.

73 Dave WB0GAZ

Date: 27 Oct 1993 10:36:35 GMT
From: swrinde!elroy.jpl.nasa.gov!usc!howland.reston.ans.net!spool.mu.edu!olivea!
inews.intel.com!ilx018-bb.intel.com!ilx049!dbraun@network.ucsd.edu
Subject: INTERMOD
To: ham-homebrew@ucsd.edu

I think it would be a great idea if somebody sold a little box, about an inch or two long, with a bnc connector on each end, that contained maybe a 7-element bandpass filter....

--

Doug Braun Intel Israel, Ltd. M/S: IDC1-41

Tel: 011-972-4-655069 dbraun@inside.intel.com

Date: 26 Oct 93 16:00:21 GMT
From: auratek!epacyna@uunet.uu.net
Subject: QRP email list - more
To: ham-homebrew@ucsd.edu

Enclosed is complete information regarding the QRP email list.

73 Ed W1AAZ

Newsgroups: rec.radio.amateur.misc
Subject: QRP mailing list announcement
Date: 12 Apr 93 12:42:21 GMT
Organization: UCSD Usenet Gateway
Lines: 17
Message-ID: <9304121242.AA21723@mickey.think.com>
NNTP-Posting-Host: ucsd.edu
Originator: daemon@ucsd.edu

This is an announcement of a new QRP Internet mailing list.

The QRP mailing list is open to all topics relating to low-power amateur radio operation. Example topics: portable operation, equipment design and construction, solar and battery power, QRPp, contesting,

The mailing list address is QRP@Think.COM; mail to that address will be sent to everyone on the list without human intervention. There is also an administrative address QRP-Request@Think.COM which will be monitored by the list maintainer(s); please use that for such requests as adding or removing yourself from the list, questions about the FTP access, etc.

This list was started by Chuck Adams (adams@chuck.dallas.sgi.com) by an announcement on the rec.radio.amateur.misc USENET group. I agreed to help out by maintaining the list and an FTP area.

--Bruce Walker WT1M

Date: 26 Oct 93 14:47:51 GMT
From: auratek!epacyna@uunet.uu.net
Subject: QRP Mail List
To: ham-homebrew@ucsd.edu

The email address is: qrp@Think.COM

Ed W1AAZ

Date: Tue, 26 Oct 1993 19:45:12 GMT
From: nwnexus!ole!ssc!fyl@uunet.uu.net
Subject: Ramsey Power amp kits
To: ham-homebrew@ucsd.edu

Doug Braun (dbraun@ilx049.intel.com) wrote:
: Anyone know if the Ramsey 40-watt 2M power amp kit is any good?
: (I'm not holding my breath...). I need a basic brick for my
: HT so I can better hit MIR, SAREX, etc. I don't need
: one with a receive pre-amp. Any other advice on that
: to get or avoid in 2M amps would be appreciated.

I built one kit from them (I thought it was a 20W amp but I could be wrong) and had no problems with it. It is in a single-frequency autopatch system I put together driven by an old 2W rice burner transmitter strip. The receiver is from a Motrac (with silicon replacing germanium in the front end). The whole thing worked fine and the transmitter output was clean once I cleaned up the 2W strip.

--
Phil Hughes, SSC, Inc. P.O. Box 55549, Seattle, WA 98155 (206)FOR-UNIX
>>> Publishers of pocket references for UNIX, C, VI, Emacs, Ksh, MS-DOS, ... <<<
...!ssc!fyl or fyl@ssc.com (206)527-3385

Date: 26 Oct 1993 13:25:10 -0500
From: spsgate!mogate!risc.sps.mot.com!risc.sps.mot.com!not-for-mail@uunet.uu.net
Subject: Temp control soldering iron?
To: ham-homebrew@ucsd.edu

alanb@sr.hp.com (Alan Bloom) writes:

>Bob Schetgen (KU7G) (rschetge%arrl.org) wrote:
>: As ARRL Handbook Editor, I would like to update the old
>: standby soldering iron project to a newer approach.

>You mean my old WW-II surplus variac is not state-of-the-art? :=)

>: Maximum approach: Attach a thermocouple or RTD
>: (resistance temperature detector) near the iron tip and feed
>: temperature info back to control an SCR.

>That's what the Weller WTCP-series solder stations do. I think they
>cost on the order of \$100. You might be able to save some money
>by buying replacement irons and tips from Weller and inventing your
>own base unit.

I used to use an RF soldering iron when working with military electronics assembly. It had a base unit that was a 28MHz rf generator, and the business end was a pencil sized holder with a coax plug inside with coax running back to the base unit, attached with a BNC. The element was a hollow tube with a coax socket at one end, and the tip on the other. Somehow above a certain temperature, the RF impedance increased, below that temperature it acted as a RF short. Heating was immediate, it took 10 seconds to melt solder, and about 30 to cool to touch. There were various tips, each had its own temperature value. Just an on/off switch on the box. You could solder to a diode lead, or a ground plane with the same tip, the power was something like 150 watts if you needed it. The tips were about \$15-25, the base was about \$500. Anyone know of this type of iron? A 100 watt RF supply shouldnt be too hard to build if you can get the tips cheap.

Date: Tue, 26 Oct 1993 15:59:10 GMT
From: haven.umd.edu!news.umbc.edu!europa.eng.gtefsd.com!emory!rsiatl!ke4zv!
gary@ames.arpa
To: ham-homebrew@ucsd.edu

References <al152511.751337973@academ07>,
<1993Oct23.145727.27921@ke4zv.atl.ga.us>, <FAUNT.93Oct25172154@netcom4.Netcom.COM>
Reply-To : gary@ke4zv.UUCP (Gary Coffman)
Subject : Re: How to do CW with a cb?

In article <FAUNT.93Oct25172154@netcom4.Netcom.COM> faunt@netcom4.Netcom.COM (Doug Faunt N6TQS 510-655-8604) writes:

>If he transmits a constant carrier, keys an audio oscillator to produce
>CW-like sounds, and identifies by voice, code practice over CB should
>be legal anywhere, even in the US. Strikes me as being a good way to
>get some practice. Keeping on legal frequencies may save you some
>hassles, and is much more polite.
>73, doug

Unfortunately the FCC doesn't see it that way. This is A2 modulation, or used to be before the FCC adopted the CCIR designator system, and it's not permitted on CB. Of course you can ask if the FCC really cares considering some of the things you hear on CB, but if you want to stay legal, you can't do it.

Gary
--

Gary Coffman KE4ZV |"If 10% is good enough | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | for Jesus, it's good | uunet!rsiatl!ke4zv!gary
534 Shannon Way | enough for Uncle Sam."| emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | -Ray Stevens |

Date: 28 Oct 93 02:46:39 GMT
From: ogicse!uwm.edu!cs.utexas.edu!csc.ti.com!tilde.csc.ti.com!mksol!
blair@network.ucsd.edu
To: ham-homebrew@ucsd.edu

References <2ahetv\$7ig@news.acns.nwu.edu>, <2alivj\$11q7@ilx018.intel.com>,
<2am2hr\$n1m@news.acns.nwu.edu>
Subject : Re: INTERMOD

: Doug Braun <dbraun@iil.intel.com> wrote:
: >
: >I think it would be a great idea if somebody sold
: >a little box, about an inch or two long, with a bnc connector on each
: >end, that contained maybe a 7-element bandpass filter....

Minicircuits makes some pretty good BNC connectorized
LOW PASS filters that are about 3 inches long. As I recall they
are 7th order chebyshevs. I dont know if they drop off fast
enough to kill something 10 MHz away....
Art.

Date: 26 Oct 1993 17:17:43 GMT
From: news.cstar.andersen.com!news.acns.nwu.edu!casbah.acns.nwu.edu!
lapin@uunet.uu.net
To: ham-homebrew@ucsd.edu

References <18OCT199311442350@vax2.concordia.ca>, <2ahetv\$7ig@news.acns.nwu.edu>,
<2aikqt\$47q@cc.tut.fi>et
Subject : Re: INTERMOD

In article <2aikqt\$47q@cc.tut.fi>,
Kein{nen Paul <k23690@lehtori.cc.tut.fi> wrote:
>
>You seem to have mixed up things a bit. A shorted 1/4 wave stub acts as a
>parallell resonance (open circuit). What you actually want is short circuit
>at the offending frequency (series resonance) and this can be done with an
>_open_ 1/4 wave stub or a 1/2 wave _shorted_ stub at the offending
>frequency.
>

> Paul OH3LWR

Paul:

This solution would work for tuning out specific offending frequencies but the original shorted 1/4 wave stub was meant to act as an open circuit at the _desired_ frequency (thus minimally affecting the signals there) and to approach a short circuit at frequencies farther away.

For example, if using a repeater at 147.345/147.945 MHz, the shorted 1/4 wave stub tuned for these frequencies should attenuate signals coming into the antenna that are in the 155 MHz range, which is where much of the offensive intermod is derived from in this area.

How effective this will be (ie. how much attenuation can be attained) for frequencies that are about 10 MHz away is something that I cannot answer.

Greg Lapin KD9AZ

Date: 26 Oct 1993 18:15:39 GMT
From: news.cstar.andersen.com!news.acns.nwu.edu!casbah.acns.nwu.edu!
rdewan@uunet.uu.net
To: ham-homebrew@ucsd.edu

References <2ahetv\$7ig@news.acns.nwu.edu>, <2aikqt\$47q@cc.tut.fi>,
<2ajm3n\$t2a@news.acns.nwu.edu>du
Subject : Re: INTERMOD

In article Gregory Lapin <lapin@casbah.acns.nwu.edu> wrote:

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>Kein{nen Paul <k23690@lehtori.cc.tut.fi> wrote:

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>offensive intermod is derived from in this area.
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>frequencies that are about 10 MHz away is something that I cannot answer.
>

For a while I liked the simplicity and ease of construction of using
a parallel tuned shorted stub for rejecting intermod. After trying it
and computing the impedance it became evident that it did not do much.

The impedance presented by the shorted stub is
 $50 \times \tan(157.345/147.345 \times \pi/2) = -467 \text{ ohms (capacitance)}$
in parallel with the antenna. This will may not do much to attenuate
the offending signal at 157.345.

Rajiv
aa9ch
r-dewan@nwu.edu

End of Ham-Homebrew Digest V93 #86

